4/5/2007

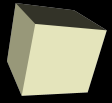- Do you have any questions about the assignment?
- Do you have any questions about the reading?

- We want to write some code that uses files and streams. A good example of this would be a simple text editor.
- We can add this functionality to our drawing program or you can write a standalone application. All it requires is a JTextArea in a GUI with save and load options.

- Now we can take the next step. I want our drawing application to have the ability to save and load full drawing. What do we need to change in the code to make this happen?

- You all understand the power of networking. When your computer isn't plugged into the internet you feel like it has lost a lot of its functionality.
- So many of the application that you use regularly use the network and a lot of the time you aren't even aware of it. It has simply become transparent.
- Given this, you need to know how to write networking code. Fortunately, Java makes it fairly easy with the java.net package.
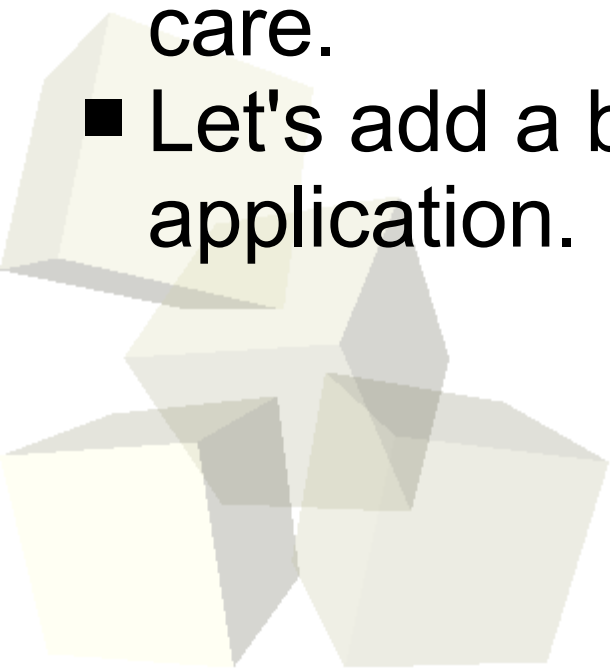
- When computers talk to one another, they do so through sockets. There are different types of sockets. The java.net package includes classes for TCP sockets and UDP sockets.
- Most communication is done with TCP sockets where the socket have something of a client/server model. A server waits on a port on the computer and clients can connect to that port. Each side "talks" through a socket. With TCP there is error checking so if the message doesn't get through, you are told about it.
- UDP is used less frequently because it doesn't tell you if messages are lost. It is faster though.

- Now you get to really see the power of the streaming model. Sockets in Java have methods that give you input and output steams. All the things we did with files can be done with networking. In fact, if you write code to work with an InputStream or an OutputStream, you can give it a file stream or a network stream and it won't care.
- Let's add a bit of networking code to our application.

- What types of applications do you think would want to use UDP? Why? How do you have to code differently when using UDP?
- The high school programming competition is on Saturday. We have 20 teams coming so we will need a fair number of people to help keep things flowing. There is free pizza and drinks for volunteers at lunch time, but you have to help out with the competition.